

WHAT IS CLAIMED IS:

1. A rotating electric machine having a stator housing coils in a slot, the opening of the slot being closed, and a cooling passage formed on an inner section of the slot, the rotating electrical machine comprising:

a plate disposed in proximity to the opening of the slot; and a resin layer formed onto the outer face of the plate, the plate and the resin layer closing the opening of the slot.

2. The rotating electric machine as defined in Claim 1, wherein the plate comprising a leg extending into the slot.

3. The rotating electric machine as defined in Claim 2, wherein the leg is disposed in a substantially central section of the slot.

4. The rotating electric machine as defined in Claim 1, further comprising a stopper projecting from an inner peripheral face of the slot, wherein the plate comes into contact with the stopper.

5. The rotating electric machine as defined in Claim 4, wherein the plate is formed from a resilient material.

6. The rotating electric machine as defined in Claim 4, wherein the plate comprises a leg extending into the slot, the length of the leg is adapted so that the leg does not abut with the bottom of the slot when the plate is not

under pressure.

7. The rotating electric machine as defined in Claim 6, wherein when the plate is deformed by pressure during injection of the resin, deformation of the plate is suppressed by abutment with the bottom of the slot.

8. The rotating electric machine as defined in Claim 1, wherein a projection is provided more towards an outer position than the plate, the projection being in proximity to the opening of the slot, a leg is provided on the plate and extends into the slot, the outer face of the plate comes into close contact with the inner face of the projection due to contact of the leg with the bottom of the slot.

9. The rotating electric machine as defined in Claim 4, wherein the plate is fixed to the slot by an adhesive coating disposed between the plate and the inner peripheral face of the slot.

10. A manufacturing method for a rotating electric machine having a stator housing coils in a slot, a rotor, and a cooling passage in the slot of the stator, the manufacturing method comprising:

disposing a plate inside the slot opening, and

closing the slot opening by injecting resin on the outer face of the plate.

11. The manufacturing method for a rotating electric machine as defined

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in Claim 10, further comprising pressing the plate into the slot by pressure during injection of resin, so that the plate comes into close contact with a stopper projecting from the inner peripheral face of the slot.

12. The manufacturing method for a rotating electric machine as defined in Claim 11, wherein the plate is formed from a resilient material.

13. The manufacturing method for a rotating electric machine as defined in Claim 11, wherein a leg is provided on the plate and extends into the slot, the length of the leg is adapted so that the leg does not abut with the bottom of the slot when the plate is not under pressure.

14. The manufacturing method for a rotating electric machine as defined in Claim 13, wherein when the plate is deformed by pressure during injection, deformation of the plate is suppressed by abutment of the leg with the bottom of the slot.

15. The manufacturing method for a rotating electric machine as defined in Claim 10, wherein a projection is provided more towards an outer position than the plate, the projection being in proximity to the opening of the slot, a leg is provided on the plate and extends into the slot, the outer face of the plate comes into close contact with the inner face of the projection due to contact of the leg with the bottom of the slot.

16. The method of manufacturing of a rotating electric machine as defined

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in any one of Claim 10, wherein resin injection is performed after coating an adhesive onto the space between the plate and the inner peripheral face of the slot.

17. The method of manufacturing of a rotating electric machine as defined in Claim 10, further comprising:

forming magnetic steel plates by a pressing process using a mold cavity,

forming a divided core by laminating the magnetic steel plates,
winding wire on the teeth of the divided core,

forming the stator core with a cylindrical shape by connecting a plurality of divided cores,

mounting the stator core on a case,

mounting ring-shaped oil jackets with a U-shaped cross section on both axial ends of the stator core, and

mounting the rotor on the case through bearings.

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